

CLAIMS

1. A blade set for a reciprocating fiber-cement siding cutting tool, comprising:

a first finger having a first guide surface and a first interior surface, the first finger being fixedly attachable to the cutting tool;

a second finger having a second guide surface and a second interior surface, the second finger being fixedly attachable to the cutting tool to position the first and second guide surfaces in a common plane and to space the first and second interior surfaces apart from one another by a gap distance; and

a reciprocating cutting member between the first and second fingers, the cutting member having a body and a blade projecting from the body, the body having a first width and the body being pivotally coupled to the first and second fingers, the blade having a first side surface facing the first interior surface of the first finger, a second side surface facing the second interior surface of second finger, and a top surface between the first and second side surfaces, the first side surface being spaced apart from the first interior surface by 0.040 to 0.055 inches and the second side surface being spaced apart from the second interior surface by 0.040 to 0.055 inches.

2. The blade set of claim 1 wherein the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.140 and 0.170 inches.

3. The blade set of claim 1 wherein the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.150 and 0.170 inches.

4. The blade set of claim 1 wherein the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.160 and 0.165 inches.

5. The blade set of claim 1 wherein:
the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.150 and 0.170 inches; and
the top surface of the blade has a curvature concave with respect to the first and second fingers.

6. The blade set of claim 1 wherein:
the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.160 and 0.165 inches; and
the top surface of the blade has a curvature concave with respect to the first and second fingers.

7. The blade set of claim 1 wherein:
the first side surface of the blade is spaced apart from the first interior surface of the first finger by 0.0425 to 0.045 inches; and
the second side surface of the blade is spaced apart from the second interior surface of the second finger by 0.0425 to 0.045 inches.

8. The blade set of claim 7 wherein the top surface of the blade has a curvature concave with respect to the first and second fingers.

9. The blade set of claim 1 wherein the top surface of the cutting blade has a curvature concave with respect to the first and second fingers.

10. A fiber-cement siding cutting tool, comprising:
a hand-held motor unit having a housing, a motor inside the housing, and a switch operatively coupled to the motor to selectively activate the motor;
a head having a casing attached to the housing of the motor unit and a reciprocating drive assembly coupled to the motor;

a first finger having a first guide surface and a first interior surface, the first finger being fixedly attached to one of the head or the motor unit;

a second finger having a second guide surface and a second interior surface, the second finger being fixedly attached to one of the head or the motor unit to position the first and second guide surfaces in a common plane and to space the first and second interior surfaces apart from one another by a gap distance; and

a reciprocating cutting member between the first and second fingers, the cutting member having a body with a width, the body being operatively coupled to the drive assembly and pivotally coupled to the first and second fingers for reciprocating the cutting member between the fingers, the cutting member further having a blade with a first side surface facing the first interior surface of the first finger, a second side surface facing the second interior surface of the second finger, and a top surface between the first and second side surfaces, the first side surface being spaced apart from the first interior by 0.040 to 0.055 inches and the second side surface being spaced apart from the second interior surface by 0.040 to 0.055 inches.

11. The cutting tool of claim 10 wherein the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.140 and 0.170 inches.

12. The cutting tool of claim 10 wherein the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.160 and 0.165 inches.

13. The cutting tool of claim 10 wherein:
the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.150 and 0.170 inches; and
the top surface of the blade has a curvature concave with respect to the guide surfaces.

14. The cutting tool of claim 10 wherein:
the first width of the body is 0.250 inches and the top surface of the blade has a width between 0.160 and 0.165 inches; and
the top surface of the blade has a curvature concave with respect to the guide surfaces.

15. The cutting tool of claim 10 wherein:
the first side surface of the blade is spaced apart from the first interior surface of the first finger by 0.0425 to 0.045 inches; and
the second side surface of the blade is spaced apart from the second interior surface of the second finger by 0.0425 to 0.045 inches.

16. The cutting tool of claim 10 wherein the top surface of the blade has a curvature concave with respect to the guide surfaces.

17. A blade set for a reciprocating fiber-cement siding cutting tool, comprising:

a first finger having a first guide surface and a first interior surface, the first finger being fixedly attachable to the cutting tool;

a second finger having a second guide surface and a second interior surface, the second finger being fixedly attachable to the cutting tool to position the first and second guide surfaces in a common plane and to space the first and second interior surfaces apart from one another by a gap distance; and

a reciprocating cutting member between the first and second fingers, the cutting member having a body and a blade projecting from the body, the body being pivotally coupled to the first and second fingers, the blade having a first side surface facing the first finger, a second side surface facing the second finger, and a top surface between the first and second side surfaces, the first and second side surfaces of the blade being spaced apart from the first and second fingers, respectively, by between

13% and 22% of a thickness of a particular fiber-cement siding workpiece to be cut with the blade set.

18. The blade set of claim 17 wherein the top surface of the blade has a width between 44% and 68% of the workpiece thickness.

19. The blade set of claim 17 wherein the workpiece has a thickness of 0.25 to 0.3125 inches, and the first and second side surfaces of the blade are spaced apart from the first and second fingers, respectively, by between 0.040 and 0.055 inches.

20. The blade set of claim 19 wherein the top surface of the blade has a width between 0.140 and 0.170 inches.

21. A blade set for a reciprocating fiber-cement siding cutting tool, comprising:

a first finger having a first guide surface and a first interior surface, the first finger being fixedly attachable to the cutting tool;

a second finger having a second guide surface and a second interior surface, the second finger being fixedly attachable to the cutting tool to position the first and second guide surfaces in a common plane and to space the first and second interior surfaces apart from one another by a gap distance; and

a reciprocating cutting member between the first and second fingers, the cutting member having a body and a blade projecting from the body, the body being pivotally coupled to the first and second fingers, the blade having a first side surface facing the first finger, a second side surface facing the second finger, and a top surface between the first and second side surfaces, the first and second side surfaces of the blade being spaced apart from the first and second fingers, respectively, by between 16% and 22% of the gap distance.

22. The blade set of claim 21 wherein the first and second side surfaces of the blade are spaced apart from the first and second fingers, respectively, by between 17% and 18% of the gap distance.

23. The blade set of claim 21 wherein the top surface of the blade has a width between 56% and 68% of the gap distance.

24. The blade set of claim 21 wherein the top surface of the blade has a width between 64% and 66% of the gap distance.

25. A method of cutting fiber-cement siding, comprising:
pressing first and second fingers of a cutting tool against a first side of a fiber-cement siding workpiece, the fiber-cement siding workpiece having a first thickness;

driving a cutting blade of the cutting tool from a second side of the fiber-cement siding workpiece toward the first side of the fiber-cement siding workpiece and into a gap between the first and second fingers; and

spacing a first side of the cutting blade apart from the first finger by a distance first distance and spacing a second side of the cutting blade apart from the second finger by a second distance, the first and second distances being between 13% and 22% of the first thickness of the fiber-cement siding workpiece.

26. The method of claim 25 wherein the workpiece has a thickness of between 0.25 and 0.3125 inches and the first and second distances are between 0.040 and 0.055 inches.

27. The method of claim 25 wherein the workpiece has a thickness of between 0.25 and 0.3125 inches and the first and second distances are between 0.0425 and 0.045 inches.

Add B1

12